



MID MICHIGAN ATARI MAGAZINE



august 1986

still .75¢

Atari News

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by Gigi Bisson - Antic Online
6/24/86

INDUS IS OUT- Prospective Indus disk drive owners be warned; the Chatsworth, CA-based peripherals manufacturer is no longer in business. A company called National Logic took over the new Indus MIDI sequencer product line, and Future Systems, Inc. purchased the rights to the Indus GT Atari and Commodore-compatible floppy disk driveline.

Future Systems has notified registered Indus owners that their Indus warranties are no longer valid. A service contract can be purchased from Future Systems for \$24.95.

According to Future Systems President Gary Grewal, the company intends to release several products Indus had in the works before the reorganization, including a CPM/BIOS RAM charger that plugs into existing disk drives. The new address is: Future Systems, 9811 Owensmouth, Suite 9, Chatsworth, CA 91311. (818)407-1647.

MIRAGE FILES CHAPTER 11:- Mirage Concepts, makers of the H & D Base database and other ST products in the Holmes & Duckworth Micronomists software line, have filed for Chapter 11 protection.

Due to their inability to fulfill a \$175,000 business loan, their bank "physically appropriated the company's assets on May 21", Mirage Vice President Michael Reinhold said in a prepared statement mailed to creditors. As their Fresno, CA offices have been shut down, company officials were not available for comment.

Southern Bell/AT&T traced the offending calls and ordered the anti-Fawell Atarian to cease and desist, threatening to discontinue his telephone service. (Credit for this morsel of Atari trivia goes to the Jersey Atari Computer Group newsletter.)

REMOTE CONTROL PETSTERS?- Nolan Bushnell, Atari Inc. founder, and current President of Axlon Inc., the company responsible for Petsters, those adorable fur-covered robots, is rumored to be considering a merger with Steve Wozniak's CL-9 company. Axlon would acquire Woz's remote control interface venture in a stock swap that would involve no cash. Teddy Ruxpin, watch out.

MORE PEOPLE USING ATARIS- Judith Cohn is conducting Cell Image Analysis research at NASA with the aid of an Atari ST computer and the DEGAS graphics program from Batteries Included. Cohn is currently writing an ST program which she hopes will help her partition digital images of human reticulocytes (individual cells which form a network of cellular tissue in the human body) into two groups.

FREE TEACHER PUBLICITY- Trying to sell your product to the education market? Put it aboard the Teacher Resource and Computer Training Center, a roving computer "mobile unit" equipped with Atari ST and Apple II computers, textbooks, software, comfortable couches and, of course, hot coffee. The mobile unit cruises the parking lots of 25 school districts in the Wayne-Finger Lakes area of upstate New York, giving 2700 teachers hands-on experience with educational software and computers.

To get your Atari ST educational product on the bus, send a complimentary sample of software conspicuously marked with the name and address of your sales representative, to: J.C. Crawford, Wayne-Finger Lakes Area Teacher Resource and Computer Training Center, 3501 County Road 20, Stanley, NY 14561 (716)526-6431.



mid michigan atari magazine

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august 1986

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This publication is the official newsletter of the Capitol Hill Atari Owner's Society, an independent user group of Atari 8-bit and 16-bit computer users. It is intended for the information and education of C.H.A.O.S. members as well as the dissemination of Atari related information. Opinions expressed in this publication are those of the respective author and are not in any way official opinions of C.H.A.O.S.

Other user groups are granted permission to reprint articles from this magazine provided credit is given to the respective author as well as to the Mid-Michigan Atari Magazine. Most original files are available from the C.H.A.O.S. BBS upon request.

SUBMISSIONS

Submissions from members are encouraged. If possible, please make your submissions by electronic means. Submissions are accepted on the C.H.A.O.S. BBS, or on disk-by mail or by giving a disk to an Editor. All submissions must be received by the 20th to be considered for the next month's issue.

NOTES TO OTHER CLUBS

Please be certain that you are mailing to the correct address (see below) and NOT to the return mail address. Exchanges of both newsletters and disk libraries are welcomed. Exchange newsletters and terms for disk library exchange should be sent to:

C.H.A.O.S.
Mid-Michigan Atari Magazine
PO Box 16132
Lansing, MI 48901

We are also soliciting other Michigan Atari clubs for affiliation with the Mid-Michigan Atari Magazine. We can offer MORE total pages and LOWER production costs per copy, with no loss in your local input. Contact C.H.A.O.S. for more information.

WHICH WILL YOU BUY?— This Christmas, Commodore will sell the re-designed Commodore 64 for \$200 while Atari Corp. delivers the 65XE for under \$100.

LUNA RELEASES ATARITEL— One of the hot items that made lots of press and drew curious crowds at last month's Chicago CES show was the rebirth of the VIDEO TELEPHONE. A nifty little device that drives either a built in 2 inch black and white screen or an full size monitor, it sends "stills" every 30 seconds or so, using a 5 second blast of data on a normal phone line. You can keep talking too. The surprise is that it is the ATARITEL system, which was sold to MITSUBISHI when Warner gave up to Trameil. Megabucks of ATARI money went into the "failure" but now it may actually be a big success. Price: about \$1,000 a unit (you need at least 2!) ATARI would probably have sold them at less than half that... or tried to.

ACTIVISION/INFOCOM MERGE— Activision, the Mountain View, CA entertainment software company, has reached an agreement to merge with Infocom, the Cambridge, Mass. interactive fiction game developer.

Activision Chairman and Chief Executive Officer James Levy said that Activision will exchange 2.0 million shares of Activision common stock, valued at \$7.5 million, for all outstanding shares of Infocom stock.

Infocom will maintain separate product development and marketing operations in Cambridge.

Activision has also recently acquired Gamestar, creator of Championship Golf, and GBA Championship Basketball, two ST games slated for Fall release; and Creative Software, a

productivity software company. Activision was founded in 1979 when five dissatisfied employees left Atari Inc. to form their own VCS game cartridge company.

ATARI MORALITY— A man in Georgia reportedly programmed his Atari 800 and modem to call the Jerry Falwell toll-free fund collection number every 38 seconds. Apparently he was attempting to prevent the Moral Majority from getting tax-free contributions which, the computerist contended in an interview with Cable News Network, is, itself, immoral.



CAPITOL HILL ATARI OWNERS SOCIETY

MEMBERSHIP

Membership dues are \$12.00 per year and entitle the member to a 1 year subscription to the newsletter, a free disk from our regular library, access to our other libraries and facilities as well as access to our other resources.

Dues may be paid at any regular C.H.A.O.S. meeting or by mail. If not using an official Membership Application, please include your Name, Address, Phone and a list of your equipment and interests.

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INQUIRIES

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Lansing, MI 48901

MEETINGS

Meetings take place on the 2nd and 3rd Saturdays of each month, at the MSU Astronomy-Physics Building, Physics Road, Room 118. Meetings begin at 10:00 am sharp and last until 1:00 pm.

S.T.I.N.G. (S.T. Interest Group), for Atari ST owners, meets on the 2nd Saturday of the month.

The General meeting, for 8-bit Atari owners, takes place on the 3rd Saturday of the month.

DIRECTIONS TO MEETING PLACE

East Grand River to the Collingwood Entrance for MSU. The first available left turn is Physics Rd. The Physics-Astronomy Building is about 1 block from the corner, on the right hand side. Park in the gated lot just past the building.

PIRACY

Piracy and illegal copying of software is not condoned by C.H.A.O.S. nor allowed at any club sponsored function or activity.

PRESIDENT'S CORNER

by Leo Sell

Well dear, it's time to leave for vacation.

But I still have to write my column for the newsletter.

Oh, that can wait. We have to go.

But I haven't even started, and it was due a week ago.

We are not going to hold up our vacation so you can do some more computer work.

Honey, I have to do the column. I also need to finish that program I've been working on.

I'm warning you...

It'll only take me a little while.

The kids are already in the car, ready to go.

Just a little longer.

OK, that's it!

(5 minutes later)

Hi honey, what's the hammer for? Gonna hang a picture or something?

Hey!! What are you doing?!!

No! Don't hit the computer with that!!

No! No!...I'll go, I'll...

THE NEW ALADDIN
A Capsule Review

by Leo Sell

Those of you at the July meeting saw a demonstration of one of the most unique products ever for the Atari. A complete magazine - on disk - no paper involved at all. The premier issue contained 3 sides full of articles, stories, reviews and more. Including some of the best graphics work ever seen on the Atari 8 bit computer. There is a lot to this magazine. If you want to see it for yourself, it will be demo'd again at the August meeting. A more complete review will appear in the next issue of the newsletter, along with instructions on subscribing if you don't make it to the meeting.

Review

MIDI ON THE ATARI
By MITCHELL WELLS

I have been asked to write a few short articles about MIDI (an acronym for Musical Instrument to Digital Interface) and its use on the ATARI. Rather than describe or explain MIDI here, I will instead tell you fellow ATARI enthusiasts about what to look for in the future of MIDI on ATARI's. However, in later articles I will expand on MIDI; I will tell you what it is and what it does in detail. For now, just know that it is a way for computers to play synthesizers and for synthesizers to communicate with computers.

If the future of MIDI on ATARI's was in any way reflected at the NAMM show (National Association of Musical Merchandisers) in Chicago the weekend of 6/14, the best that can be said is that there will be a future, albeit a slow moving one. The NAMM show in question is where all the manufacturers of musical equipment meet to display their wares to retail outlets like Elderly Instruments (where, by the way, I work), who in turn make orders based on what they see. Although the ATARI was seriously overshadowed by the IBM, APPLE and COMMODORE 64 (NOT the AMIGA), some new developments in software for the ATARI may make it a frontrunner in the race for the most popular MIDI computer within a year and a half. There was very little new in terms of MIDI software for the ST computer, which I saw as a disappointment as it's the only computer that comes with MIDI ports already on it.

HYBRID ARTS did not have MIDITRACK ST done yet, and EASYTRACK ST was about as useful to a musician as ACTIVISION's THE MUSIC SHOP (which is not very and if you own an ST and are thinking about a MIDI software package for a serious musician, stay away from both of these). However, if you're not a musician and want something that will be easy to use with a CASIO CZ 101, I would suggest ACTIVISION's package. It's much cheaper and easier to use. HYBRID ARTS did unveil an 8 voice sampler (sound digitizer--more on samplers later) which is made to be hard wired to an ST. There was some great software for it, and it did have its uses, but it also had tremendous drawbacks for a real MIDI system (no MIDI thru port, the need of another MIDI keyboard as a trigger, so on). They did have a good MIRAGE sampler editor and a generic system dump program however, which they also have produced for the 8 bit ATARI's.

Besides HYBRID ARTS, KAWAI, which has made fine pianos for many years, unveiled a new line of synthesizers. These synthesizers will come with software editing packages for the ATARI 8-bit machines ONLY. They're fine synthesizers with fine software. When I asked why KAWAI decided to go with the ATARI rather than the more popular COMMODORES, APPLES or IBMS, KAWAI said they thought the ATARI's were better computers for the money and that the ST's were shaping up to be THE MIDI computer in Europe! I had also heard this from two other sources (Musician Magazine last month and Electronic Musician from two months ago).

Next month I will talk about my own ATARI-based MIDI system and just exactly what this MIDIbusiness is! Until then, if you have any direct questions, reach me, Mitch Wells, at Elderly Instruments on North Washington in Lansing any day except Tuesday.

SECRETARY/TREASURERS REPORT By GARY FERRIS

Another month, another meeting. Again slow due to normal summer months and temperatures in the 90's, about 50 people came to sweat with us anyway.

At the July general meeting we were treated to an excellent demo of MIDI software for the 8-bit Atari by Mitch Wells. The software demo was Miditrack III by Hybrid Arts for the 130 XE or 256k XL's. If I had an ounce of musical talent, I'd have had my checkbook out on the spot. VERY IMPRESSIVE.

Leo Sell demod a new magazine on a disk called ALADDIN. It comes as a three disk set bimonthly and will be demod again in August in case you missed July's meeting. If you subscribe the club will receive a \$5 rebate which would help us continue our level of services to the membership.

Malcolm Cleveland showed us the Samsung amber monitor which he purchased at the recent computer show.

Guy Hurt reviewed the premier issue of the Mid-Michigan Atari Magazine and sprung a surprise quiz onto the members. Fortunately no one was injured in the ensuing panic which followed.

John Nagy did his normal top notch job with the disk of the month, which we have all come to expect. Many thanks for a job well done.

The balance in the treasury stands at \$563.30

Atari Technical

ST BOOKSHELF ON A LASER DISK
by NAT FRIEDLAND, AnticEditor

The Atari exhibit at the Chicago CES in June was packing them in to see something genuinely new -- the 540 megabyte CD ROM system (Compact Disk, Read Only Memory) running on the 520ST computer.

Software by the Activenture Corp. of Monterey, California put the 26-volume Grolier Encyclopedia on a CD ROM disk -- along with a smart database that finds all references for any word in the encyclopedia in three seconds flat.

This system will be premiered only with Atari ST computers. Atari is committed to release a CD ROM player -- targeted to retail at \$599 -- by the end of the year. Grolier will probably price the CD ROM encyclopedia disk at around \$150-200.

HOW COMPATIBLE?

How different is CD ROM from standard digital audio disk technology? Could you use CD ROM on any compact disk player?

"No, it's not 100% compatible with digital audio. But the idea is to keep down CD ROM costs by using as much as possible of the CD audio technology," said Rolander. "And there is a universal CD ROM standard that has been accepted by Philips, Sony, Hitachi and all the other major manufacturers involved in the field. So there won't be any problems with competing formats."

Similarities between CD ROM and CD audio include the same 4.75" disk size, with identical mastering and duplicating processes. This keeps expenses low. It costs no more than \$4,000 to make a master disk for pressing. The cost for pressing 1,000 disks is \$4 apiece.

All CD players share the same principles of laser optics, the same motor and drive specifications. However, CD ROM requires greater precision in mechanically positioning the laser head and mirror.

Also, CD ROM needs a higher degree of error correction accuracy. It uses 10 to the minus 12th power -- meaning you might get a typographical error once in a trillion times. This is accomplished by adding 288 bytes of error correction code onto every data "block" of 2,048 bytes. An unformatted CD ROM disk could actually store 600 megabytes.

"CD ROM needs these more precise tolerances because you cannot have the two-or-three bit error factor that's acceptable for compact disk audio reproduction," said Rolander. Accordingly, he wouldn't be surprised if top-of-the-line CD ROM players also include audiodisk capability in the near future.

WHAT'S ON TAPE

"Any text that's stored on magnetic tape can be machine read and automatically indexed by our software," said Rolander. This immediately brought up the question of how much reference material was now available on magnetic tape.

His answer was that just about all printed matter of any substance that has been published within the past five years could be found on tape. That's because the largest state-of-the-art typesetting machines, such as the CompuGraphic 8600 and the top-line Mergenthaler model, normally keep the text data on electronic tape.

"Also there are the huge libraries of information already processed electronically for online databases," Rolander added. "A surprising amount of this material is in public domain, often because it has been prepared by the government."

Rolander sees Activenture as an "optical typesetter. "Paid by royalty fees, Activenture offers the service of creating a fast, interactive index for existing reference material and databases. When Rolander isn't hurrying to finalize his software in time for Atari's September deadline, he's flying East to meet with traditional publishers and sew up more CD ROM rights.

HOW IT'S DONE

The CD ROM disk has four different sections. First is the raw data -- which is nothing more than all of the encyclopedia, from A to Z. Then comes the index, or table, which contains pointers to all unique words in the encyclopedia. Next is the directory, which is similar to the file management sectors of a floppy disk. It tells the program where to find a file on the disk.

Finally, there is the Facts and Figures software, which loads into the computer and runs the show. At this writing, Rolander was uncertain whether this section would be on the CDROM or on a separate floppy disk. It depended on whether Atari made the CD ROM Player a self-booting peripheral.

All the Activenture CD ROM software was programmed entirely in the C language. After Rolander wrote his minicomputer indexing

program, it took the VAX no more than six hours to read the approximately 58 million characters in the Grolier Encyclopedia and create the index table.

The program counted the number of unique words at just around 141,000. Some 30 "stop words" -- including but, a, and, of, the, etc. -- were ignored in the index.

At the same time, the unique words were also alphabetized and every one of their locations in the encyclopedia was mapped. One reason for the lightning speed of the Facts and Figures software is that it searches references in the index, not in the encyclopedia.

Interestingly, the fully mapped index takes up 50 megabytes, almost as long as the 58 megabytes of the encyclopedia itself. However, the entire encyclopedia and index only require one-fifth of a standard compact disk!

The encyclopedia text files must be usable with video monitors that have different resolution formats. So the software formats the text in real time as it is going into display.

"To keep the program moving fast, it calls up very large buffers," said Rolander. "Infact, it will use whatever free memory is available. The storage buffer requires a minimum of 64K, and the Facts and Figures software will also need its own 64K of RAM.

Transfer rate of the CD ROM is 150 kilobytes per second. An important design element of the ST, to speed this huge data transfer, is the DMA (Direct Memory Access) chip. And it's no accident the ST has this capability. Rolander and Atari ST hardware designer, Shiraz Shivji, worked closely together, once it was decided the ST would have CD ROM as a peripheral.

CD FILE FORMAT

The format of a standard floppy disk consists of tracks in concentric rings, each consisting of a number of sectors. Optical laserdisks have two standard formats: CAV (Constant Angular Velocity) and CLV (Constant Linear Velocity).

CAV is similar to floppydisk formats. The tracks are concentric rings, each containing a number of sectors -- except the sectors are called "frames" or "blocks." The CAV format wastes a great deal of space. The outside tracks are longer, but they contain the same number of blocks as the shorter inside tracks. However, CAV is easier to program for read-write access, and some laser videoplayers use this method because it permits "freeze-frame."

CLV is a spiral format, much like a phonograph record. All the blocks in CLV are equidistant along one long spiral. So there are three times as many blocks per track at the outer edge as there are towards the center. The CD ROM's 540 megabytes in CLV format are divided into 270,000 blocks, with 2,048 bytes in each block. CLV is the format of CD audio and some video players. Rolander chose the CLV format for his CD ROM system because it permits far more storage.

AND THE FUTURE

We have told our typesetter (the same one since Antic began) never to erase any of the magazine's floppy disk files from now on. It would not be a bad idea to bring out a CD ROM disk containing every issue of Antic. All topics and all listings ever printed in the magazine would be instantly accessible via the CD ROM database.

And while we were at it, we also might as well include every program in the Antic public domain library on the same disk.



Editor's Note

By JEFF BONE

As mentioned last issue, an attempt is being made to solicit other local Atari clubs to participate in our newsletter. So far, the Flint area group shown some real interest and may be participating as early as the next issue. Other groups are beginning to respond as well.

This means more pages will be added to accomodate their needs (also to accomodate the additional knowledge to be shared). We can actually grow to over a 50 page ALL-ATARI monthly if this co-operation grows to include more clubs.

Perhaps, if we unite, The industry will be forced to realize that support for the Atari machine is legitimate and strong. You're darn right we should unite. After all, we do speak the same language...

Special thanks to those people who wrote articles for this issue. The information contained in them is top-notch. Perhaps, because of these articles, someone else may save time, money, and get 100% out of their hardware/software. Once again, thanks for your support. Now, don't the rest of you who didn't write an article feel fired up?

Till next, I'll see you in the main loop...

THE LIBRARY TABLE
By JOHN BAKER

It's finally finished! I know, some people said it couldn't be done, wouldn't be done, at least in their lifetime, but it's staring you in the face. What am I talking about? Why the new C.H.A.O.S. Library disk files listing of course!

Because of the many changes, not only in the number of disks that we now have to offer, but also because of the new category subsections, many of you may not be aware of what is actually available to you. Many, many new files have been added, even completely new entire disks. Old, stale and outdated material has been removed. Once you familiarize yourself with the new listing, we feel that looking for that certain file or disk will be a much easier task.

One of the first and foremost things you get with your library disk is quality. Every disk contains only the best available program versions in each category. These files are found to offer the most value for size/time considerations. We have done all of the hard work for you, adding proper doc files, testing, selection, etc.

The library is just one of the many benefits available to club members. You make its existence possible, so be sure to take advantage of the wealth of information it offers you.

The Disk of the Month subscription is still the best way to get the freshest, hottest new 8-bit programs for your Atari. And at only \$50.00 per year for 14 disks, it is an exceptional value.

Summer time is traditionally a slow time for the library, as well as the club in general. Be assured that although the tempo has slowed for the season, the internal workings of the club are as active as ever. Expect new and exciting things as a C.H.A.O.S. member

I would like to take a minute to express my thanks to the many users groups that are currently exchanging software with us. If your group or club is interested in a software exchange, either large or small, please contact me with your software listing and exchange conditions. For fastest results, contact me direct at: John Baker, 15371 Chandler Rd., Bath, MI 48808.

THE LAST V8 - MASTERTRONIC
By Rob Doell

The other day I was walking through one of the only stores that still carries Atari, Toys R Us. I came across a game called "The Last V8" by Mastertronic Inc. It had an appealing cover and a little caption near the bottom that said "Features Superb Voice Synthesis". I flipped the colorful package over and looked at six pictures of the game screens. I said to myself "Rob, you have got to get this!" There were only 2 of the games left, so I promptly grabbed one and walked to the check-out counter. The game cost me \$9.99+ tax(!). When I got back to my computer I opened the sack and pulled out the game, there was a sticker that had been cut, I put the two halves together and it read... "Mastertronic, Quality tested, Do not accept if seal is broken." I quickly emptied the sack and found no receipt. I had to hope that the game would be good...

I stuck the back side of the disk in since the front was for a C-64, and while it was booting I searched the inside of the game's box for instructions, there were none. I guess I was lucky to receive a disk! The Game looked neat, but nothing compared to the package screens. At the bottom it said.. "Hit Space bar to Start", I hit the space bar and it said "V8 Return to base", There was some neat sound, but nothing like what I expected. The playing screen is about 3 inches from the top, and that is all scrolling roadways of which are almost impossible to drive the car through. There is a timer to get to the base, it runs so fast its impossible for me to even get near the base. You have only one life, so stay on the roads, if you even touch some grass your dead. Still There was no voice synthesis. I was very dissappointed.

Three years ago this might have been a neat game, but today it doesn't compare to anything! The game is controlled like Adventure Internationals "Rally Speedway" but not as easy. Even for ten dollars its a rip off. Since all of the other games from MASTRTRONIC cost about the same as this one, and have the same type of packages, I might assume that they too are as bad as this one. (ED. NOTE: Some of MASTRTRONIC's games have gotten raves, too.)

There appears to be no copy protection used on the version I bought.

I might demo the game at this months meeting, and I know that I am going to try this out on a C-64 as soon as possible! Perhaps that's where the voice synthesis is.

On a scale of 1 to 10 I rate The Last V8 a 1.





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300/1200 BAUD MODEM	99.00
PANASONIC PRINTER	59.00



Industry Report

PIRACY CONFERENCE ON COMPUSERVE Reviewed by GARY FERRIS

On June 26, 1986 a conference on software piracy and its effect on users and programmers was held on Compuserve.

Representing the developers were OSS, Batteries Included, MichTron, Kyan, and several others. Antic and Analog had Reps and several users were tuned in.

The conference was started with an introductory statement from each of the developers about their views of the problem.

Mark Skapinker-Dir. Prod. Development
Batteries Included:

The widespread piracy of commercial software is creating an environment in which publishers are losing significant revenue. BI has for the past two years issued most of its new releases in unprotected form. We consider copy protection to be an inconvenience to honest end-users, no longer meeting the needs of either publishers or consumers.

(An extensive discussion paper written by Micheal Reichman, President of Batteries Included, is available in DL8 for downloading. The file is PIRACY.TXT.)

Tom Hudson-Independent Developer:

As an independent software developer whose sole source of income is sale of my products, the piracy issue is a major concern of mine. The way I see it, there are two types of "pirates" (read thieves). The first type of software thief copies software and documentation and sells it, almost as a business. These are apparently relatively rare. The type of software thief I am most concerned about is the casual copier who makes a copy for a friend, then that person makes a copy for another friend, ad infinitum. THIS is the copying we need to stop. If we don't, people like me will have to abandon the Atari market because of lack of sales. I will personally make this decision later this year, and I hope I can continue to produce Atari software.

Frank Cohen-Regent Software:

As a developer and user of software and professionally, I oppose copy-protection. As a marketer of software, I find the existence of "hackers" and a very bad history of software piracy upsetting. When I first heard of the ST my reaction was that it could rid Atari of the 8-bit reputation and be looked upon as a business and home productivity tool. Unfortunately, Atari did not present itself firmly or decisively when the ST came out. Many dealers were confused about pricing policy on Atari's ST software. This set an assumption, that ST software is free. It is not. Regent doesn't fear "hackers" or "pirates", it's the attitude that making a copy of software is alright between friends, between a dealer and a customer, or between user group members. For this reason, protection is a necessary first step to correct the "laissez-faire" attitude about our products.

David Duberman-Prod. Manager-Shanner

As we are fairly new in the business, we don't yet have a firm policy on copy protection. None of our software products is copy protected. We include statements with an explanation in our documentation requesting the user not to pirate the software. As for suggestions for stopping piracy, aside from education, I really can't think of a way as long as software is distributed on floppy disks.

John Demar-Pres.-Quantum Microsystems

The piracy problem is simple to understand but difficult to control. Most pirates seem to consider copying software to be as criminal a not stopping completely at a stop sign! What needs to be understood is how widespread the effects of software piracy are. My company is a small group of dedicated people who work 60 or more hours a week to produce the best possible products at the lowest lowest prices possible. We've been pleased with the success of ST-Talk and contribute this to the price/performance ratio it has offered. We will keep publishing unprotected software as long as it's profitable and as long as our customers appreciate our efforts!

J. Weaver-Senior Programmer-Factory Programming:

As a long time professional programmer I would estimate that at least half of my potential income (and that of most other program authors) is lost to the effects of software piracy. I deeply resent the fact that so many people take advantage of the unique circumstances of this

industry to rob me and my fellow programmers of the already miniscule royalties we receive for the (average) three to six months of work that goes into each and every program we sell. I feel just as strongly, however, that the solution to software piracy is NOT copy

protection OF ANY KIND. Copy protection only serves to foster a bad attitude on the part of the honest computer user. See text files in DL8 for a full policy statement and CHART (Computer Hobbyists Against Raiders and Thieves) recommended warranty and (c) policy statement.

A long set of exchanges ensued, taking much too much room to repeat it all here. But here's a few of the points made.

All of the developers expressed their feeling that copy protection was not the answer but some felt they had no other option. Some felt education was the way to go. Still others felt that some sort of hardware solution (such as the Paperclip key) was needed.

A valid point was brought up that the numerous ads in Antic and Analog for copy programs and hardware would encourage a number of people to pirate software. The mags responded that the more offensive ones are being removed and others may be after some more consideration.

A user responded that he would not buy copy protected software if there was any alternative and he was fed up with software which didn't run because it thought his double density drive was a pirate drive (Happy, etc).

Perhaps the most alarming thing was the number of developers who said that they may abandon the 8-bit Atari line due to lack of sales.

AND NOW: MY OPINION.

I am extremely annoyed when I walk into a store and find they no longer carry Atari products or they have such a poor selection of software as to make it seem they no longer support us. I was at K-Mart the other day and counted only 13 titles of Atari software. Of these 11 were only there because they were on the back of a Commodore disk.

I asked who was responsible for deciding what software they sold and was told it was an outside warehouse which stocked their shelves. I have yet been able to get a satisfactory answer. I have to assume that they feel the Atari software will not provide the level of sales they require to maintain them in inventory. This may be due to the fact that their are probably several pirate copies for each legitimate copy sold.

Copy protection is not the answer, it only serves to anger the honest user who wants to have a backup for personal use (and should have the right to do so).

I feel that the solution may be in one of two methods.

1) An INFOCOM style sampler disc which allows you to see how a program works, but is not complete enough to be useful. This will take care of the (valid) argument that you cannot return opened software to most stores and there is a lot of software which you can pay \$30-50 only to find it will not meet your needs.

2) Insert a coupon which will allow you to receive a rebate when someone purchases the same piece of software and turns in your coupon. It probably would give the purchaser a discount at the same time. (say \$5 or 10% of the purchase price) When you received the check, you would also receive another coupon. This way, instead of giving a bootleg copy away, you would help increase sales (which would encourage more Atari software to be written) and could actually end up with free software in the deal.

If you like these ideas, I encourage you to write to the software companies and express your desire to see one of these methods used.

In conclusion, before accepting that piece of pirated software, think about the effect it may have on future releases. It could well be the last piece of Atari software you will ever see.

How can you participate in a conference on Computerserv? It's easy.

When you log on type GO ATARIB. This gets you into the Atari 8-bit SIG. Conferences are usually advertised in the bulletins which are displayed when you enter. If there is one going on, type CO from the SIG's main menu and your in. If you don't wish to participate but do wish to see what was said, there usually will be a transcript in one of the Data Libraries within a week or two. This will save you connect charges but does not allow you to input your thoughts on the subject.





THE DOWNLOAD By JOHN NAGY

The newly re-written Bulletin Board System software has now been rung out pretty well. We are back to bug free and crash free operation now at 1200/300 baud, with Spartados, BASIC XE, a 256k 800XL (soon to be replaced with a 320K 130XE) and double sided disk drives. The new features made possible by this change will be WONDERFUL. Call us at (517) 371-1106, 24 hours any day.

The new SIGHTS AND SOUNDS message base has gotten unprecedented use- as of this writing it has been available under a month and has had over 300 messages in it! Other changes include turning the sleeping CLUE GAME base into a trivia game base to be hosted by GUY HURT until the fall. Look for more changes coming up.

We get requests online for help getting around on the BBS. It can be pretty cryptic, using code letters to try to do things when you don't even know what the thing is. Lets try to sort out a few things here that apply to using almost any phone-up computer service.

WHY GET ON A BBS?

Good question. Most BBS's offer MESSAGE BASES for exchange of info or just conversation. Often there are divisions in the messages by topic or purpose. At CHAOS, we have a game base, an Ads base, a video and audio base, a place for software info (and upload descriptions), an ST base, and a catchall GENERAL base. Most of the action on most BBS's is in the message bases. But as a new user, the message bases seem very odd and hard to get into. It takes time and experience to really follow a discussion that proceeds by a couple thoughts a day across weeks, but it comes easily.

What most new users want is the DOWNLOADS. These are various programs and texts that the caller can get FREE for the time it takes to transfer them on the phone. Many new users go hog-wild and call all over the country getting mounds of programs, sometimes illegal copyrighted files from "PIRATE BBS's" that come and go. Watch out for these, some are TROJAN HORSES for the FEDS, and the others are just plain criminal. Another word of warning: Most BBS SYSOPS (SYStem OPerators) frown on excessive downloading without similar sharing

of your software through UPLOADING. You may find yourself shut out of a system you took too much from, or find you can get at a lot more files after you help them by sending some goodies you found elsewhere. Don't be offended if that great game you send up never shows up on the download section... it may have "gone

off" that BBS just before you discovered them.

Other features often found on BBS's include various on-line games (adventure or simple arcade), polling on just about any question, and text files on many subjects that can be read, magazine-style, while you are on.

GETTING ON

I will assume (hope) that you have a decent terminal program and at least some documentation for it. The best for the 8-bit machines is the EXPRESS! series from Keith Ledbetter. There are public domain versions for the 1030/835/XM301, the MPP, and all interface-type (including Hayse type) modems. The EXPRESS! programs are available from the club library and are light-years ahead of all other terminal software in ease of use and outright power through features.

Anyway, set your terminal to 8-bit word length, NONE for parity, and ONE STOP BIT (if there is any choice for these items, this is the standard BBS setup. Don't freak if you don't understand these terms- it isn't necessary). Set your BAUD RATE (again, if you can do it with the modem you are using) for 300 or 1200 baud depending which transmission speed is supported at the BBS (and at your end). 1200 baud BBS's also will talk to you at 300 baud, so fear not. Also set the TRANSLATION for the BBS you will be using. The choices are ASCII (the standard of all-brand BBS systems) or ATASCII (the special ATARI implementation that allows graphics to be sent along with the text... only on ATARI BBS's.) (Don't miss the 10 great cartoons that randomly open each of your sessions on the CHAOS BBS by being in ASCII!) XE-TERM users: Yes, it DOES have ATASCII available. Press "O" for the options submenu while the main menu is on the screen. Cute, eh, an item important as that with no indication how to get to it?

Notice that many terminal programs will reset the parameters mentioned above EVERY TIME YOU USE THE AUTODIALER DIRECTORY. Be sure the right values for each BBS number are in the directory!

Dial. (However it's done on your setup.) If the BBS isn't busy (it usually is, or ~~else~~ there would be no reason for YOU to call, right? Sort of like a great night spot, if you can get nearby parking, it means there's no reason to go in...) you will be presented with

a "HIT RETURN" prompt, an intro of some sort, or NOTHING but a blank screen. If you get the last one, try a few RETURNS to get its attention.

NOTICE: Atari BBS's decide whether to give you

ATARI Language GRAPHICS or not based on the RETURN you send. Be in ATASCII when you hit return, else you will be treated like "one of the OTHER guys".

Sooner or later, you will be asked for your name or password. If asked for a password and you don't have one, do what it says to get one. Most are free and are granted immediately at your first call, although many systems will grant you only limited access until they check to see if you are some axe-toting Jason type. This is why they ask for phone numbers... If you really live at the number you give, you must not be totally screwy. (Many sysops really do check, and won't validate you if you have something odd about your application.)

Some systems have a "second password" of sorts to verify who you are... On the CHAOS BBS, you first give your password, then the system asks for you to finish your phone number... odds are pretty good that if you know both, you are really you. It only really makes any difference if you are getting or sending private mail.

ONCE YOU ARE ON

One cardinal rule: READ. This is a TEXT medium, and you MUST master the medium to succeed in it. Day after day I watch some new (and sometimes old) user offered options 1, 2, 3, or 4 on a simple menu, and they choose "B"... YIKE! How can they hope to get anywhere? But they get excited and leave notes about how they ended up somewhere they didn't want to be, or that "the BBS screwed up".

A good BBS won't screw up, but there are far more bad BBS's than good ones. You MAY "crash" (knock out of order) a system by giving it unreasonable input or hanging up unannounced. There's a way to do EVERYTHING on every BBS, all you have to do is find it. Most have MENUS that will guide you as you go, or at least have them available if you ask for them. Try a "?" or "H" or "HELP" if you can't figure out what's going on. A RETURN will often cause a fresh menu to arrive to let you know where you are. Play with it. Take notes. Save screens of menus and print them out. The time you take understanding a BBS will pay you back time over time.

DOWNLOADING

How? Not too hard. First, understand that there are at least two standard ways to get a

file from a BBS. One is variously called "DISPLAY", "STANDARD", "X-ON/X-OFF", or "ASCII"... this method just dumps the file out to you in one long piece, and expects that you

have a means of collecting it all up (or that you just wanted to see it). This gets very messy if you really want to get it cleanly on disk as a viable program. You can "capture" the file with your software, but the beginning and end of the file are not precisely marked, and you get the full joy of any characters that phone noise (not to mention somebody on the extension!) might add.

The other method normally offered is called "XMODEM" and/or "ERROR FREE TRANSFER PROTOCOL". It sends material in blocks, and checks in with your end to see if each block got through correctly, resending if not. It also automatically saves it all as a file when it is done. This method makes it hard to see what you are getting, but assures no garbage in your file.

To use XMODEM, you first locate a disk that has room on it and a file you want in the download section of the BBS you are connected to. Set up the BBS first... tell it you want to DOWNLOAD (usually with a "D") and follow the prompts carefully to provide a filename in the proper way. No BBS I have called yet has been a mind reader... it can only find a file named EXACTLY what you type, not what you MEANT. Once the BBS finds the file, it will usually ask you which kind of download you want. Choose XMODEM. The BBS will then tell you it is ready to send.

Now you set up your end. You have under a minute to get it ready before the BBS will give up on you, so don't start looking for a disk now. Get to your terminal menu (most use the SELECT button, but you need to know your software), and select whatever is marked "XMODEM RECEIVE" or "DOWNLOAD XMODEM" or whatever. It will then typically ask for a filename, and sometimes for a drive number. Give it what it wants: remember this is YOUR software you are talking to, not the BBS. You DON'T need to save your file under the same name as it is on the BBS - but it may be easier to identify if you do. Once you type it in, it most likely will automatically return to the terminal mode and start the transfer. When it finishes, it will save the file, complete and typically workable, on your disk.

There are a few variations of this scenario, usually due to differences in modem software. Some will require you to set up YOUR end first, then the BBS, then press START to begin the transfer. Others, like the MPP SMARTCART, require chants and rituals known only to a few mystical persons. (Get MPP EXPRESS! and even normal people can use it.)

UPLOADING

This usually works about the same way, but turned around. Again, set up the BBS first, then go into your terminal menu and set up for a file SEND-XMODEM. It should be just as automatic.

Do leave a message about whatever you upload... The SYSOP needs to have an idea of what came up or else it makes his job harder. Plus, why not claim full credit for sending such a gem anyway?

MESSAGES!

Follow the MENUS to get to the message area (BASE) you are interested in. You can usually read messages in a number of ways: forward, reverse, a range of message, or individually. Some systems allow you to read the TITLES of the messages the same ways. This makes it easy to find out if anyone is talking about anything you want to read about, and to get the message numbers.

Leaving a message is pretty straightforward even if it is different on each BBS. You may have to suffer through a long set of questions about what and how you want to leave your message, but the questions are not usually very cryptic. Eventually you will get to start typing your thoughts. Check your spelling, it's about all people can judge you by online. Don't be abusive- remember the SYSOP has control (AND HAS YOUR PHONE NUMBER!).

You end your message with either a RETURN on a blank line, or on CHAOS and some other BBS's, with a "/" as the only input on a line. Use the provided editing functions first to clean up the message, and NEVER EVER use the CONTROL/ARROW keys to correct anything. The message will be ruined by this attempt, as none of the words are in the same place when you type them as when they will be displayed. On CHAOS, a "/" gets the editor menu. When you save your first few messages, go back and read them! See if you got it right before you let everyone else read them. You can (almost) always delete it and try again.

GETTING OFF

DON'T hang up. It's rude in person and problematic in automation. Use the GOODBYE, TERMINATE, OFF, LEAVE, or whatever code the BBS has for ending your stay, and stay on til it hangs up. The BBS takes a while to realize you vanished if you just hang up, and some may have trouble resetting for the next caller.

If you have CALL WAITING on your phone, you will be pleased to know that you will never miss a call... You will be knocked off any BBS

every time you get that "BOOP" tone. This can be very aggravating to both ends of the telecommunication, especially if you are on block 250 of a 256 block file transfer. (Some people have a sixth sense for this, they NEVER call you until you are downloading!). Some limited "protection" from this happening can be had two ways: make your calls to BBS's at times you are unlikely to get calls; or try to "block" the call waiting. This works with variable success, but try it. Call YOUR OWN NUMBER FIRST. You will get a busy, obviously, as someone is using the line... HANG UP AND IMMEDIATELY CALL THE BBS. You will have used up both circuits normally used to get to your number, and until the first one clears (varies from seconds to hours) the second call is "clear". Good luck on this.

I hope this gets you started in the right direction in telecommunication. It can be a great new world of freinds, information, fun, and software, or it can be a confusing thicket of strange symbols and letters. It all depends on IF YOU KNOW THE LANGUAGE. Learn it. It's often close to ENGLISH. And believe me, your english (AND TYPING!) will also improve rapidly with use.



JULY ST-UTTERINGS
BY BRIAN GOLUSKA

The ST special interest group of CHAOS meets the second Saturday of each month. Meetings are smaller and more informal than the general CHAOS meetings. At the July meeting we had 6 ST owners, 3 people who were thinking about buying ST's, and a couple of others.

Corrections: Last month I said that Mike Clewley brought a 10 Meg Atari hard disk drive. It's really a 20 Meg drive, which Mike again brought to the meeting. This drive is still not generally available, but it does exist. Also, I reviewed Time Bandit, and said that despite a glitch that sometimes crashes the current game, it was the best arcade/adventure game so far for the ST. After more experience, I have to say that it would be the best so far, if it didn't have that very annoying glitch.



This month, Mike brought a clock cartridge from Shanner International, that runs around \$40. This plugs into the cartridge slot on the ST, and keeps time and date while the system is powered down, and while the cartridge is unplugged. A program to set the date and time automatically comes with the cartridge. While the cartridge works fine, and meets a real need for the ST, Mike pointed out one drawback: It sticks out too far (a little over 2 inches). It would be better at half the size.

Peter Miller showed the motherboard of his ST, on which he is installing the "piggyback" upgrade to 1 Meg. He talked about the problems of soldering in the small space between the chips, cutting certain traces on the board, and following the documentation. Next month we should know how it went. (Chips for the upgrade from 520K to 1 Meg cost about \$35). Which led to some discussion: Should you buy a 520 or a 1040?

1040's are apparently hard to get. 520's, monochrome, are apparently at a good power to dollar ratio. Another consideration may be the built-in double-sided 1040 drive, and built-in power supplies. Some like the 1040 because it has less cables and less power plugs. The 1040 is a more self contained unit. On the other hand, some like outboard power supplies, because the power supply puts no heat into the chips. There is a rumored "520ST Plus", with 1 Meg of memory and separate power supplies and drive that might satisfy us cable-loving heat avoiders. On the other hand, I could be talked into a 1040 if the price was right. (A 1040 was displayed by CHAOS at the May Computer Fair in Lansing, and it certainly was nice, and didn't overheat at all).

Speaking of rumors, I will only speak of the most harmless and unexciting in my articles - I prefer to describe items we have seen and touched. Too many computer rumors tend to reduce credibility of all computer products/decisions. So I'll write a minimum about products that don't exist, although I will mention items like Mike's 20 Meg drive, which physically exists, but may not exist in rumor.

Of course, software is a more important topic than hardware at any CHAOS meeting. A lot of discussion about First Word techniques occurred, and I learned several things, mainly from Mark Smathers. I also learned that anything that is in a FOLDER (directory) that is named \AUTO gets executed when the system is booted. Several people said that \AUTO was in the 520 manual - I still can't find it in mine! But that's what CHAOS meetings are for, to exchange knowledge.

More ST-UTTERINGS next month.

Review

PRINT SHOP and PUBLIC DOMAIN SUPPORT
By Sally Nagy

PRINT SHOP, by Broderbund, \$39.95. Additional Graphic Disks, 1,2,3- \$19.95.

One of the most successful programs ever (of any type!), Print Shop lets you create signs, banners, greeting cards, letterheads or just about anything you like using your dot matrix printer. It comes with a double sided disk, manual and a quick reference card which lists commands, fonts and graphic symbols.

PRINTSHOP includes the GRAPHIC EDITOR lets you modify an existing graphic or create your own. You are limited to the 8 fonts and 9 borders already in the program. Lettering takes solid, outlined or 3-D shaded form. There are 10 abstract background patterns and sixty graphics on the disk. The graphics can be printed in three sizes. You may use the keyboard, joystick or Koala pad with the graphic editor.

SCREEN MAGIC allows you draw text on the screen, create Kaleidoscopes, load, save and print whats on the screen. SCREEN MAGIC is really a separate program from the rest of Print Shop. The original Print Shop graphics, or new graphics created with the Graphic Editor, cannot be saved or displayed in Screen Magic. Likewise, Screen Magic images cannot be used with the other Print Shop features. (Do not be dismayed, PRINT SHOP COMPANION and PSPIC3 help you get more out of this portion of the program. These programs will be covered in more detail in this article.)

PRINT SHOP COMPANION by Broderbund. \$32.95.

Print Shop Companion comes with a double sided disk, manual, and reference chart, and is an enhanced graphic editor that is much like the Koala Pad. The editor has 4 screens of functions compared to 1. You can do patterns, mirror, fill, scroll and more. You can load graphics from any graphics disk- your creations or Screen Magic, but only a portion of the screen magic pic file will load. Select from a blinking square over a section of the pic. Edit this portion the way you want it and save it as a Print Shop graphic.



The Border Editor allows you to create new borders. The Companion comes with some new borders but now it's your turn to be creative.

With the Font Editor, you can create the type of Print Style you want. The disk includes some new fonts as well, which can be altered to create your own.

Tile Magic creates an ever changing kalidoscope designs which you can freeze, edit and save to use for backgrounds.

The Creature Maker gets you started creating characters. It divides the screen up into three sections head, body and feet. Change parts of the character, ie. Monkey's head, Clown's body and Gnome's feet. Then you can save it or go to the Graphics editor to finish the picture.

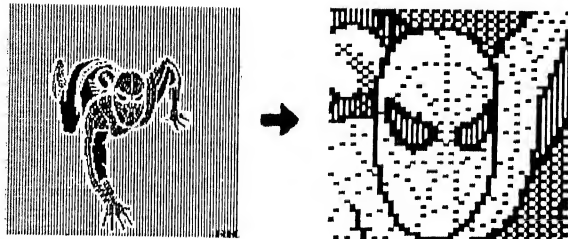


To help you get organized, the calendar function creates a weekly or monthly calendar. Your daily notes can come together with graphics. Print it or just save your calendar to disk.

Reports say that the Companion had problems with the 850 interface. The Broderbund programmer is reportedly working on that bug. Another hassle with these two programs is the constant switching of disks. Otherwise they are great.

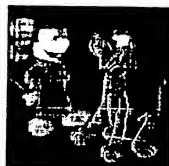
GRAPHIC SHOP by C. Jackson and D. May, Antic, sells for \$19.95.

Graphic Shop will convert all or part of your favorite Micro Illustrator, Computereyes, or Micropainter pictures in graphic files for use with Broderbund's Print Shop. You have the options of converting the whole screen or any section of the screen into a Print Shop graphic.



To convert a portion of the screen you move the small blinking frame with your joystick to the section you wish to use and then press the joystick button. After the picture is converted you then can choose one of four possible options to be saved to your disk.

Note: If the whole screen is compressed, the results may not be acceptable when a finely detailed high resolution picture is used. In such cases, you may wish to convert only a small portion of your picture. Also, you may wish to change certain colors before loading a pic file. Graphic Shop only gives you a two color mode similar to the two-color Print Shop screen. It will substitute black and white pattern fills in place of colors it's unable to represent, and often colors will compress to black producing a very muddy show!



KOALA



FULL CONVERT



PARTIAL

QUICK PIX by White Lion Software, Post Office Box 357, Ridge, New York 11961. Mail order \$29.95 and \$2.50 postage.

Quick Pix, according to an ad, is expected to be released in mid-July. Quick Pix allows you emerge your print shop pictures into ATARIWRITER Wordprocessor documents. Check it out and let us know how you like it.

PUBLIC DOMAIN SUPPORT FOR PRINT SHOP

THE PRINT SHOP GRAPHICS LIBRARY UTILITY, by Tom Pazel of Rockaway, New Jersey.

Tom's Print Shop Library Utility does four things: you can print an alphabetic list of the graphic names on any disk; you can rename any graphic on any disk; you can obtain a printout of the actual icons on a disk, twenty per page, alphabetized and with the name under each one; and you can selectively display any graphic. This utility is currently in the C.H.A.O.S. Utility Library as UCL7.

Also on UCL7 is ARTSHOP by Forrest A. Blood. This program will convert back and forth between Print Shop's Screen Magic files and Datasoft's Micro-Painter (or compatible). ARTSHOP also provides you with a method of manipulating Print Shop data by deleting files, renaming files, listing file names on a printer (differentiating between Print Shop Graphics and Screen Magic), and formatting disks in either Print Shop or Micro-painter format.

This program gives some new possibilities: 1) Adding colors and patterns to your Screen Magic files. 2) Superimposing captions onto pictures

you've already created with Micro-Painter. 3) Adding captions to digitized pictures you've stored with Computer Eyes Video acquisition system. 4) Creating colorful title screen sequences for movies you record with your VCR.

On C.H.A.O.S. Utility disk UC14, you will find the following programs:

PSPIC3, as mentioned earlier, allows you can take your favorite Koala Pic, covert it to the 62 sector format, using CONVERT, The Rapid Graphics Converter (also on this disk), and then covert it again using PSPIC3. Once you are done with this conversion you can then load into Print Shop's Screen Magic. Add Print Shop's fancy text to your Pic. You then have the option of saving this new creation. PSPIC3 also gives the option of loading Print Shop Graphic Files and then converting them into a 62 sector Atari pic file. You can have several graphics on one screen which you can save as a 62 sector Atari pic file. There is an option of having an overlay of text or another picture.

SHOPTOOL converts Printshop files to Atari format and vice versa. Displays of any of these two formats and conversions are allowed. Shoptool looks for graphics saved with the .PSF extender. Shoptool creates a 5 sector file which you then can transfer via modem or to friends. This program doesn't check disks for duplicate file names, so be cautious!

CONVERT is the Rapid Graphics Converter (mentioned earlier). This program lets you switch disk formats of picture files created with the 10 most popular commercial graphics programs for Atari. It converts pictures created on the following software: Micro Illustrator(all versions), Micropainter (Datasoft), Fun with Art (Epyx), Paint (Atari or Reston), Visualizer (Maximus), Moviemaker (Reston), Graphics Master (Datasoft), Atarigraphics (Atari) and Graphics Machine (ESI).

PSF1020.DIR is a program to use with your Atari 1020 Plot/Printer. It gives a printed directory of the Print Shop Files on the disk.

SG10PSF.PRT is a program for the SG10 printer that prints the icons on your Print Shop Graphic Disk with the names underneath them. It can be used with most any graphics printer, but the name alignment under the pictures may be off.



CHAOS BBS



CREST



COOKY MONSTER



MC2SHOW



GARFIELD

PICPADX is a converter to Change Printshop Pics to Typesetter Pad Pics. It is written by C.H.A.O.S. member Richard Evans. The opening menu gives you the following options: Print Shop Pic Directory, Atari Directory, Auto-convert (Whole Disk), Convert Individual Pic and Instructions.

Also on UC14 you will find approximately 20 associated 5 sector PS Files. Use SHOOTOOL to view and convert them.

Another new addition to the CHAOS LIBRARY (not even in the listing, it's so new!) is ICONSHOP, written in ACTION!. It is a graphics editor that is a joy to use. Although its main purpose is as an aid in the creation of Printshop Icons, it also is a fair drawing program. It is as powerful in some ways as the PRINTSHOP COMPANION, and handles very much like the KOALA PAD software, using picture menus to point to.

Iconshop also formats disks in Printshop or DOS 2.0 format, loads & saves files, and converts graphic files between the two formats. All of these features are accessible with the keyboard, mouse, or joystick.

You'll find ICONSHOP in your C.H.A.O.S. library as Utility UC18.

C.H.A.O.S. has 3 disks of Print Shop Graphics Data Files, UE1, UE2, and UE3. These are the files compiled by Jersey Atari Computer Group. SCREEN MAGIC GRAPHICS disks are being created.

More and more utilities and premade graphics are becoming available as each month passes. We will keep you informed as to the growth of our library collection in order to maximize your PRINTSHOP enjoyment.

Please Note that these programs are intended to enhance Broderbunds 'PRINT SHOP' and not to disseminate their copyrighted products, so please distribute original works only!



Review

"NAM" - Reviewed by JEFF BONE

"NAM" by Strategic Simulations Inc.
(Solitaire Play Only) Retail Price \$34.95

Several years ago a game with this title would have been as controversial as the war itself. But, attitudes and public opinion have changed. In fact, there is now great interest in the events, tactics, and campaigns of the war. Of course the game companies were all too eager to exploit this interest into capital gain. Several board games have been released. Now, computer simulation games of this era are arriving in full force.

The first thing that should be said about NAM is that it is a "tactical" combat game. Therefore, it does not simulate any of the political problems that existed at that time. But, if you're looking for action, you got it! From turn one till the end of the game the action is fast and furious.

Upon booting the diskette, you're given a choice of five scenarios to choose from. These five scenarios represent various historical situations that occurred throughout the war. Next, you choose the level of difficulty you wish to play. The computer then asks you to choose a "historical" or "non-historical" set-up for the enemy forces. The historical set-up is obviously the same every time. But, don't think the word non-historical means random, because it doesn't. In fact, there are actually only two different "non-historical" set-ups for each scenario.

The computer then creates the terrain for the scenario being played. Graphics! And they look great. The colors are vibrant without being obnoxious. Good detail, too. You can actually tell the difference between a M113 APC and a M60 MBT (a personnel carrier and a tank to you civilians). A smooth scrolling map is also present.

The next thing you notice is that only your troops are visible. Yup, that's right. The enemy units are "hidden". They will remain so until they are spotted or fire upon your troops. So, you'll have to search for them. My palms are getting sweaty...

Then comes the "Artillery Plot Phase". This allows you to place the cursor anywhere on the screen for indirect bombardment. This is an excellent way of softening up suspected enemy positions.

Next, the "Movement" and "Combat" phases alternate between the computer and the human player.

The final phase awards victory points and asks you if you wish to save the game.

Now, for a note on game design. The game has some interesting play balance features. Since each American unit is superior, they are worth more points (if you lose ONE tank you'll have to destroy FIVE enemy units to break even). To prevent from losing units you will need to rotate your front line troops. Because, every turn a unit does nothing it regains strength. This is very hard to do since 3 out of the 5 scenarios have the Americans on the defensive, out-numbered, and out of position.

Now, some bad news. Helicopters are much too slow in this game. They are only marginally faster than a truck. Yet, they are worth 60% more points. Which makes them "not worth a flying truck"! Also, there are no "innocent civilians" present. So, with superior firepower, you are allowed to lay waste to entire villages with no chance of losing points for "hurting civilians". This is un-realistic. The civilian element in Vietnam was a touchy political situation. Civilian casualties were quickly exploited by the enemy. While allied forces were trying to gain the confidence of the populace.

This game is rated "INTRODUCTORY". This is because the rules are easy to understand and short. But, the complex tactical and strategic decisions that need to be made make it an intermediate game.

WARNING! This game is addictive. Many a night I've found myself surrounded by mosquito netting while wearing my cammies and boonie hat, the "Apocalypse Now" soundtrack played at full volume on the old turntable.

On the Software Report Card, I give this game a B.

Oh, by the way. If you find yourself surrounded by hundreds of Communist troops, with no hope of escape, you can always press "the button" to end it all...

The reset button, that is...

Squad dismissed!

don't miss the
CHAOS meetings



GETTING YOUR 8-BIT ATARI TO TALK TO YOUR ST

The following material was taken from the Mar.86 National Capital Atari User's Group and was written by Rick Beetham.

Many new owners of the Atari ST computers have probably come across the problem of transferring files from their old 8-Bit Atari computers. In most cases, getting the ST to talk to their modem was just a matter of purchasing or building a cable, acquiring a terminal package, and then calling up their local BBS. After the initial thrill of getting their ST up and running they probably started to notice that there is still a lot of good software available for their 8 Bit machine. All they have to do is download it... well maybe they will re-connect their 8 bit machine to the modem and call back. Of course that is always the time when they find that elusive ST subroutine that they have been looking for so then they have to disconnect, reconnect their modem to the ST, recall the BBS, then....

And of course, what about the disk subscription you have to Antic magazine? How the heck are you going to get those ST programs off of that 5 1/4" disk? Do you really have to upload all those files to the local BBS with your 8 bit then call back with your ST and download them back onto your 16 bit machine? Sigh.... if only you had bought that 850 interface.... etc.,etc.

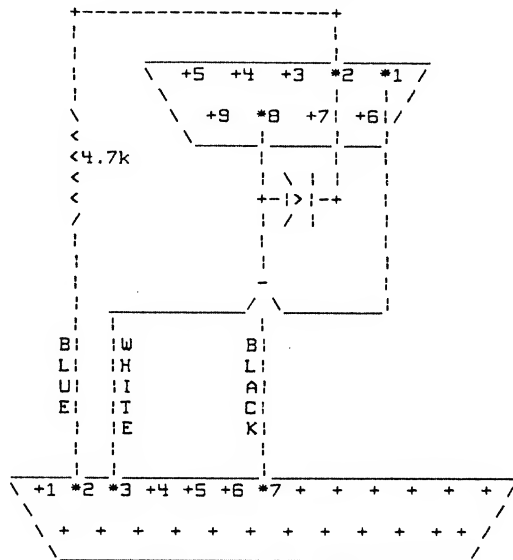
Well, here is an easier way to transfer files and you don't need an 850 interface; or two modems; or a friendly SYSOP in order to do it. The solution is using a null modem cable. The cable gives you a very bare-bones RS232 configuration of a signal ground, a receive data, and a transmit data line. In order to make a null-modem all one has to do is connect the receive data line from the 8 bit to the transmit data line of the 16 bit; likewise the transmit data line from the 8 bit is connected to the receive data line on the 16 bit; signal ground is common to both.

After building the null-modem I then used STTERM2 on my ST and Smartterm 5.0 on my 8 bit. I set both terminals to Xmodem protocol, 1200 baud, ASCII, and half duplex. I successfully transferred several test files from one Atari to the other without fail.

The cost for this cable will be all of about \$13, and that is if you buy all your parts new from Radio Shack. If you have an old Atari joystick, you can use the cable from that and save even more.

PARTS LIST:

Atari joystick, plug & cord - 2761538
Length of 3 strand wire
Switching diode - 2761122
4.7k 1/2 watt resistor - 2718030
25 pin RS232 female connector - 2761548



Note: Black and White wires
do not Connect

DISK DRIVE BLUES?

Many owners of non-ATARI disk drives are having trouble finding service or repair when their drive has a case of "the punies". Below is a list from Exchange Newsletters across the country which may help...

From the ATARI Federation, Trak drive owners should contact:

Integrated Computer Resources
247 N. Neilnor Blvd., Suite 61F
West Chicago, IL 60185
(312) 231-6104

They will repair and upgrade Trak drives and supply printer cables for the A2-D2 to utilize the built-in 4K buffer.

Percom owners should contact:

STS Computers
1073 W. Broad St.
Falls Church, VA 22046
(730) 237-0558

STS has developed a new operating system ROM. STS engineers are soliciting comments from users concerning firmware bugs in hopes of improving the drives. Schematics are available for \$5.

From LAACE, Rana drives are being serviced by:

Nuvotronics
W. Easy St., Suite 5
Simi Valley, CA 93065
(805) 581-3677

Indus drives may soon become a problem too... Future Systems, Inc. purchased the rights to the Indus GT Atari and Commodore-compatible floppy disk driveline and notified registered Indus owners that their Indus warranties are no longer valid. A service contract can be purchased from Future Systems for \$24.95. The new address is:

Future Systems
9811 Owensmouth, Suite 9
Chatsworth, CA 91311
(818) 407-1647

If you own one of the above drives, file these addresses for future reference.



Telecom

PACKET RADIO

(reprint: March, 1986 CompUtah)

What is packet radio? It is a system of sending data, text, files, or programs over a radio link using a modified X.25 protocol. The X.25 protocol is a system of blocking the data into no more than 256 character blocks, using ack/nak response, an address field and frame check sequence error checking in some ways similar to Xmodem or Amodem protocol. For those who understand data communications, it is a HDLC format.

One difference is the address portion of the block where you give your call and the call of the stations you are sending to. This field can contain up to 8 destination stations. Another difference is because packet uses one frequency or channel, it is half duplex.

The box which interfaces the computer/terminal to the radio is called the Terminal Node Controller, TNC. The TNC has several different sections. It is a protocol converter. It converts standard async to HDLC and back to async. It has a buffer, usually 16k. It contains a 202 compatible modem, microprocessor and ROM, as well as the hardware necessary to key the transmitter and sense the receiver.

How does it work? Let's go briefly through the process. You type in a message or access a file you wish to send to a friend. When you hit Return, the TNC will wait for the frequency to clear (nobody else using it). Then the TNC transmits a block and waits for a response. If it gets an ack, it will send the next block. If it gets a nak, it will send the same block over. This whole process takes a second or two. Because only the addressed stations respond to each other, several people can be using the same frequency at the same time with no interference with one another.

There are several BBS accessible only via packet radio and operate much the same way as our BBS works. Presently Hams are working on a TNC which will handle several different callers at the same time for a multiuser BBS.

There are some limitations on packet radio. Below 30 MHz we can go only 300 bps, but around the world. On 2 meters, 144 to 148 MHz, the most popular band for packet operations, we can only go 1200 bps. But on the 70cm band, 440 MHz, we can go 19.6k bps.

Now I will tell you the reason for all the addresses. VHF, 2 meters, and higher frequencies only allow line of sight communications. If you can't see it you can't talk.

I can see the top of mount Nebo, so I can talk to someone there. But I can't see Nephi, so I can't talk to Nephi. I can see Provo, and Provo can see Santiquin, and Santiquin can see Nephi. So, if I include the calls, addresses, of stations in all the intervening locations, each one will retransmit my message until it gets to Nephi and returns the response. This may not seem impressive but if you put the intervening stations on mountain tops, as planned, you could communicate with Denver, or maybe even St. Louis going east; or San Jose, Atari headquarters, going west. You must, of course, hold an amateur technician class or higher license to transmit, but anyone can receive.

There is a special bonus this year for packet users. One and possibly two missions of the space shuttle will have a packet system aboard so those interested can send and receive a message from the shuttle. I remember how excited I was in 1983, sitting in line at the bank when I heard, crystal clear, Astronaut Owen Garriott, W5LFL, aboard STS-9 on my handie-talkie with only a rubber duck antenna. This is the real opportunity to engage in the space program as an individual and get started in space communication.

In the near future a satellite will be sent up with a packet system allowing individuals to send up a message, have it stored, and then retrieved by someone on the other side of the earth. An orbiting BBS. Speaking of satellites, there are presently 9 satellites (6 Russian, 2 English, & 1 American) up there for amateurs to use on CW and SS8. This is only the beginning. The future holds real exciting advances in personal/hobby space communications.

The cost of getting into packet is about \$300 to \$1000 for a radio, antenna, and TNC, assuming you already have a computer or terminal. The cost of equipment to do satellite work is about \$1000 to \$2500 for 2 radios, antennas, and rotors. A computer is nice to help aim the antennas and to track the orbiting satellite as well as logging contacts. If you are interested in more information, contact Stephen Lewis at 566-2620, or the Utah Amateur Radio Club HAM Hot Line at 583-3002.

— Stephen Lewis

PS: I wrote this article before the tragedy of the last flight. I think the planned packet experiment will be delayed, but will still take place because NASA still wants to involve the general population in the excitement of space travel and this is one method to aid in accomplishing that goal.



Atari Technical

RAMDISK FOR STANDARD 800XL

A RAMDISK is part of a computer's memory that is treated as if it were another disk drive. Files and programs can be saved to it and loaded to it almost instantaneously. DOS 2.5 is set up to provide users with a nearly full size ramdisk on a 130XE.

You can create a MINI ramdisk on a normal un-upgraded 800XL computer too. There is unused RAM area in the XL that you may have heard about "hiding" under the ROM... it is used by BASIC XE and SPARTADOS and a few other fancy programs, but mostly sits gathering bits. Put it to use to make a 15+K ramdisk by:

1. Boot with DOS 2.5 and normal BASIC
2. Type: POKE 1802, PEEK(1802)+128 [return]
3. Type: DOS [return]
4. Type: L [return] RAMDISK.COM [return]
5. Type: I [return] 8 [return] Y [return]
6. Type: H [return] 8 [return] Y [return]
7. Type: D [return] D8:DOS.SYS [return] Y [return]
8. Type: B [return]
9. Type: POKE 5439,56 [return]
10. Type: DOS [return]

The DOS menu (which is actually the Disk Utilities Package called DUP.SYS) will come up instantly, being loaded from the area of RAM that the computer now thinks is DISK DRIVE #8. You don't even need a disk in drive #1!

You can put anything in your "DRIVE #8" that you could put on a normal drive provided it FITS: you have only a little more than 15K, less after DUP.SYS goes there. BEWARE: copy files from the RAMDISK to a real disk before turning off the computer... because they EVAPORATE when there is no power!

Another good use of the ramdisk is for a MEM.SAV file. Nobody ever uses MEM.SAV because it takes soooooo long... but the idea was good. When you are programming (or anything) in BASIC and want to go to DOS, if there is a MEM.SAV file available, DOS will copy that part of the BASIC file into it to let you go to DOS without losing it. When you return to BASIC, it loads MEM.SAV (your BASIC program) right back into memory. With a RAMDISK, it's almost INSTANTANEOUS.

To make a MEM.SAV, after step 10 above:

11. Type: N [return]

Now you can go to DOS and back, and everything is right where you left it... and nothing ever even MOVED!

COPYRIGHT?
JUST FOLLOW THE STEPS
By JOLENE NORRIS (A.C.E.)

If any of you have written a computer book, a program, or any other computer product and you want to get it copyrighted, it is a very easy task. Remember these points:

1. Print on the work the word "COPYRIGHT" or the copyright symbol -- a circled "C".
2. Inscribe the author's name.
3. Add the year.
4. Write on the product "ALL RIGHTS RESERVED".

Taking these steps will protect the materials developed against unauthorized use by others. These initial steps should be followed by writing for copyright forms to:

Copyright Office
Library of Congress
Washington, D.C. 20559

Also state the kind of article you want copyrighted (computer software, book, etc.). The cost of the copyright for computer programs is \$10.00 plus a copy of the program on disk and a printed copy of all documentation.

ATARI TEACHER'S NETWORK
By JIM HERZBERG

All educators using the Atari computer should be members of this local user group for teachers just as all Atari owners should be members of their local users group. I first saw reference to Atari Teacher's Network in the August 1985 issue of A.N.A.L.O.G. magazine. I sent my money in and have received two issues of their quarterly newsletter. The cost is only four dollars (\$4) per year.

The last issue contained two pages of letters from Atari users from all over the world; book and program reviews; a summary of Atari LOGO commands; and a catalog of ten disks of education programs in their public domain library. Many of the letters contained requests for assistance or for additional information about Atari computers. Other letters tell how educators are using their computers in the classroom. The worldwide readership gives a new perspective of the brotherhood of Atari owners.

To join the Atari Teacher's Network send four dollars to:

John E. Hanna
Teaneck High School
100 Elizabeth Street
Teaneck, New Jersey 07666

Just Starting

DAS IST DOS

by Leo Sell

For starters, I have a correction from last month's article. DOS option A will not write the directory as a text file on disk. Sorry. I'm afraid I wrote that without trying it first. However, Sally Nagy, after finding my error, compiled a short routine that will read the disk directory and write it out to the disk as a text file (thanks Sally):

```

10 DIM A$(20)
12 DIM B$(1280)
19 REM OPEN DISK DIRECTORY
20 OPEN #1,6,0,"D:*.*)"
30 TRAP 80
40 INPUT #1;A$
50 B$(LEN(B$)+1)=A$
60 GOTO 40
80 CLOSE #1:OPEN #1,8,0,"D:DISKDIR"
90 B$(LEN(B$)+1)=" "
100 B$(LEN(B$)+1)=A$
110 M=17
120 FOR N=1 TO LEN(B$)/M
130 PRINT #1,B$(N-1)*M+1,N*M)
140 NEXT N
150 CLOSE #1
  
```

Sally also suggested a few applications for this sort of program. Writing a description of each disk file is certainly more handy when you can load a list of files into memory. Another application is a temporary Table of Contents when writing a long work. Use your imagination and enjoy.

Now that that's behind us, let's move ahead. The first two sections that follow are rather closely related: Saving and Loading files, and Common DOS errors.

SAVING/LOADING. While this section might be more appropriate as part of a Basic article, I think it's needed here because of common mistakes and misunderstandings.

There are two formats available for saving/loading files. The most common way to store files is the SAVE/LOAD format. The following syntax is used:

```

SAVE "D:FILENAME.BAS"
LOAD "D:FILENAME.BAS"
RUN "D:FILENAME.BAS"
  
```

This is the fastest and most common way to save and load a Basic file. LOAD loads the file and waits for a further command such as LIST or RUN. The "RUN D:" format automatically loads and runs the named file. But, there is a hitch (had to be don'tcha know!) If a file already exists in the memory of the computer, and a "LOAD D:" or "RUN D:" command is executed, the file in memory will be replaced. You cannot use LOAD/RUN to enter two files into memory at once.

Merging files in memory is where the other format comes in handy. The LIST/ENTER format has no effect on the program currently in memory, except on line numbers that exist in both programs. You can use this format to save all or part of a file in a way that allows you to merge the lines into another file in memory, or examine the file with your favorite word processor. The syntax is:

```

LIST "D:FILENAME.LST"
LIST "D:FILENAME.LST",LINENUMBER,LINENUMBER
ENTER "D:FILENAME.LST"
  
```

Listing part of a file gives you the ability to save a particular routine for use in other programs. Avoid line number conflicts though. The computer does not know the difference between lines entered from the keyboard and lines entered from disk. Whatever is entered last takes precedence.

Let me give you an example of using the ENTER command to merge files. Let's pretend that you know you have a timer routine listed to disk numbered from 1000 up, and that you have reserved lines 1000 and up for a timer routine in your present program. With the program you are currently working on in memory, place the disk containing the other file in the disk drive. We'll pretend the file name is TIMER.LST. Type ENTER "D:TIMER.LST" and press Return. When execution is complete, LIST the program. Voila! Lines 1000 and up have been added (or replaced).

Now let's assume that you made some significant improvements to your timer routine and you'd like to save it by itself for another time. You can't use "SAVE D:" because the entire program will be written to disk. The same with "LIST D:". However, you can list to disk and specify the beginning and ending line numbers you wish to include. For instance (pay attention to the placements of the commas):

```
LIST "D:TIMER.LST,1000,1200"
```

Lines 1000-1200, inclusive, are now on disk waiting to be merged another day.

A couple of common errors when saving and loading files should be mentioned. The most common is a missed colon or quotation mark. Another is a misspelled filename or extender. By the way, wild cards are legal when loading files from Basic.

A is to use extenders to help identify the type of file written. Notice the extenders in our example file names. Convention holds that a "SAVED" Basic file will have a .BAS extender. A "LISTED" file will have either a .LST or .ENT extender.

There is a caveat to saving files. When you SAVE or LIST a file to disk, any file existing on the disk with the file name you use will be replaced, unless the file on the disk is protected.

COMMON DOS ERRORS

There are numerous error messages that you will run into at one time or another. Most are non-fatal. One that is fatal to the program in RAM is entering the DOS command. Doing so will clear memory. Be sure you have saved your file before you enter the DOS command.

The error messages in the Atari operating system (O/S) are a little cryptic, consisting of a 2 or 3 digit error number. The following are some of the most common:

<u>ATTEMPTED ACTION</u>	<u>ERROR #</u>
"LOAD" a "LISTED" file	21
"LOAD" (from Basic) a machine language file (*.OBJ, etc).	21
"ENTER" a "SAVED" file	??
"SAVE" to a protected file name	167
Delete (from DOS) a protected file	167
Rename a protected file	167
Copy to a protected file	167
Attempt to write to or format a write-protected disk	144
Write data without opening file	133
*End of file (EOF) error	136
Nonexistent drive number	160
Disk full	162
Nonexistent file (not found)	170

The end-of-file error marked above, is especially of interest to you telecommunicators. This is a common problem when garbage exists on the end of a file. There are various programs available from the library that will help clean it up and make the file usable. You might also note that some other DOS's are not as susceptible to EOF errors.

Before assuming a file is defective, there are several steps to take. Try them in order. One step or another should load the file, or the combination of steps will verify that the file is bad:

1. "LOAD" the file
2. "ENTER" the file
3. Go to DOS, load from option L
4. Also from DOS, copy (option C) the file to the screen (the syntax is D:FILENAME.EXT,E)

The first three steps simply help you check or verify the saved format of the file. The fourth verifies it as a good or bad disk file. Copying to the screen successfully indicates that there is garbage at the end of the file.

A HINT OR THREE MORE

A lot of people are a little lost when it comes to loading a machine language file from DOS. Once you do it you'll find it is quite easy.

A machine language file is generally identified with an .OBJ or an .EXE extender. If the disk is supposed to be self-booting, it may even be named AUTORUN.SYS. At times, you may have need to load the machine language file from the DOS menu. To do so, simply type L and press Return. When prompted, respond with the file name (wild cards are legal). Most of the time the file will load and run automatically. There are rare occasions when a file will only load as an AUTORUN.SYS (although some DOS other than 2.0/2.5 will often run the file regardless). If the file doesn't run, try renaming it AUTORUN.SYS, and reboot the disk (be careful of duplicating file names of course).

This brings up another point of interest. To make any machine language program self-booting, put it on a DOS 2.0/2.5 disk and rename the file AUTORUN.SYS. The disk will not boot and run automatically. The other programs on the disk, if any, can be accessed by booting DOS from another disk and then accessing the files.

At times you may want an AUTORUN.SYS program to call another program. Such is the approach on most disks with a Menu program. An AUTORUN.SYS program executes a command like: RUN "D:MENU.*". There is a utility available on the DOS 2.5 disk, as well as several others in the library, that will allow you to custom make an AUTORUN.SYS to suit your needs.

Another matter that seems to confuse people is the printing or the display of documentation (.DOC) or text (.TXT) files. Use DOS option C. To print the file, copy to the printer using the following syntax when responding to the prompt:

D:FILENAME.EXT,P:

The file will then rattle off on the printer. One caution, the characters will be sent to the printer exactly as they are. If there are control codes (inverse characters and such) in the file, your printer may go crazy...but only until you turn it off. If this happens you should probably load the file into a word processor and clean it up.

To display a .DOC or a .TXT file on the screen, respond to the prompt with:

D:FILENAME.BAS,E:

E: is the device the computer uses to address the screen. As the text begins to scroll, you can pause it and unpause it using control-1. Press the control-1 combination once to pause, and again to unpause. Easy, huh!!

The last hint regards appending files. Append means to attach to the end of. Sometimes, particularly with machine language files, you need the programs to run consecutively. An example might be the RAMDISK program followed by a terminal program. The biggest confusion seems to be determining which file to copy to when appending. The rule is: copy to the file that should run first.

When people do this, there is always a fear that they will make a mistake and blow away an important file. Well, that's what backups and caution are for. The following steps are what I recommend for safety. I will use the names FILE1.OBJ and FILE2.OBJ to indicate the order in which I want the final product to run:

1. Using option C-Copy D1:FILE1.OBJ,D1:FILE1.TMP This step writes the file onto the disk a second time under a different name.
2. Append FILE2 to FILE1. Using Option C-Copy D1:FILE2.OBJ,D1:FILE1.TMP/A There should be no space before the /A. The /A tells DOS to append one file to the other.
3. Rename (option E) FILE1.TMP to AUTORUN.SYS. This will make the program self-booting.

The two files have now been combined and the new file will automatically load and run. If you followed this procedure your original files are intact and you have a third, combined file as well.

Well I hope the articles this month and last have served to diminish some of the confusion surrounding the use of DOS. Those of you that felt that these articles were too basic should remember that I am really simple minded at heart...

Atari Technical SHARED DRIVES

(reprint: March, 1986 SCAT)

With the prices on 8-bit computers dropping, I have ended up with a number of computers and too few disk drives or printers to go around. I made a cable to connect two computers to one or two disk drives, so two people can play games simultaneously, or to access one disk with two different programs running without reloading programs.

If you want to get more use out of your system, this is how I do it. I do want to warn you, though. I could not find the technical data to know for sure if this hookup is completely compatible, so I make no guarantees. But I have it hooked up and use it with a 130XE and an 800.

This hookup has also worked successfully on an 800 and a 400, and on two 800s. The disk drives I have used are an Atari, Indus, and a Rana, both alone and daisy-chained. So far all systems work fine.

You will also have to have two monitors or an antenna switch to view each computer's output. Here's what each cable pin is used for with a 13-pin plug: *1 - Clock In; 2* - Clock Out; *3 - Data In; 4* - Ground; *5 - Data Out; 6* - Ground; *7 - Command; 8* - Motor Control; *9 - Proceed; 10* - 5+v/Ready; *11 - Audio In; 12* - 12+v; *13 - Interrupt.

To make the new cable, use pre-made cables, one 3-foot, the other 6-foot. Cut the 3-foot cable in half, and cut 1.5 feet off the 6-foot cable, leaving 4.5 feet on the other end. Obtain a 2-foot length of 6 conductor cable, and connect one end to each terminal of a DPDT switch. Now mount the switch in a box which will sit in front of your disk drive. You now have one switch with cable attached and 4 plugs with cable attached (only 3 will be used; set aside one plug for parts). Mark the plug with the 4.5 foot length of cable (C) for computer and one 1.5 foot length (D) for the second computer, and another 1.5 foot length (D) for disk.

Take the case off the plug to determine the color of the wires to each pin or use an ohm meter or a continuity checker to determine the color of the wires and make a chart. There is no standard color code, so be careful. Find the 3 wires attached to pin *1 of each plug and splice them together. Continue to splice wires for pins 2*, *3, 4*, *5, 6*, *9 and *13. Now splice the wire from pin 12* of one of the computer plugs to 12* of the disk plug (two wires), and repeat for pin *11. (The 12 volt cannot go from computer to computer, and the audio will sound in both monitors if connected.)

Tape the extra wires from the other computer cable from pin *11 and 12*. Splice the wire from pin 10* of one computer plug to the wire connected to one corner of the DPDT switch. Repeat for the center tap of the switch to 10* of the drive plug, and repeat for the other wire on the same side of the switch to pin *7. Make sure you don't mix up the wires - the switch should have the configuration in figure 2.

FIGURE 2.

C1	Dr	C2
10*	10*	10*
7*	7*	7*

Now solder all the splices and tape them separately so no splices can touch each other. Then wrap tape around the splices so it makes a neat package. Use a continuity checker or an ohm meter to **CHECK YOUR WORK BEFORE** plugging them back into your computers. This is it; you're done. If the switch points to the opposite computer, just take it out and turn it around without unsoldering any wires.

FIGURE 3.
COMPUTER DRIVE COMPUTER

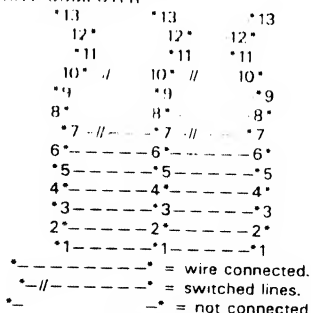


FIGURE 4.

Plug *-----* Plug
[splice]
Plug *-----* % DPDT SW

— Roger Brandt

Atari News

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By GIGI BISSON

LINK 255 STs!

ST NET (\$149.95) a local area network software package, allows several ST computers share floppy disks, hard disks and printers -- even exchange messages and conversations. Two ST computers can be linked with two standard 5-pin DIN cables (not included). Up to 255 STs can be linked using RJ-11 cables (the same kind used to connect modular telephones) and the ST Net interface boxes (\$49.95 each.) Quantum Microsystems, PO Box 179, Liverpool, NY 13088. (315)451-7747.

ST AS SMART EDUCATION TERMINAL

With the CCC MICROHOST minicomputer, up to 128 Atari ST computers can function as smart terminals with 512 colors, high resolution graphics, and mouse, accessing 2,500 hours worth of courseware teaching math skills, reading, spelling and computer science to grades 1-8. Computer Curriculum Corp., 1070 Arastradeo Road, PO Box 10080, Palo Alto, CA 94304. (800)227-8324.

BURN YOUR OWN

Make Atari ST cartridges to save RAM, disk space and start-up time. The HIPPO EPROM BURNER reads, burns, verifies, copies and edits memory devices such as ROMs, EPROMs, EEPROMs and electrically erasable RAMs. The \$139.95 price includes power supply, hardware and software compatible with both color and monochrome models. Hippopotamus Software, 905 University Avenue Suite 12, Los Gatos, CA 95030. (408) 395-3190.

DISK COMPACTOR

The ST SCRUNTCH disk compactor (\$14.95) can scrunch down a disk of separate files into a single, compact file. It comes in versions utilizing either GEM or standard Atari command line interface and includes a collection of programmer's disk utilities. Cherry Software, 3415 East 5th, Dayton, OH 45403.

HI RES DIGITIZER

We first saw the PRINT-TECHNIK VIDEO DIGITIZER at the Atari show in London, now this hardware digitizer and software package from Germany is making the rounds at American trade shows. The digitizer boasts a resolution of 256 x 256 pixels and 16 levels of gray. To create color graphics, each gray level can be assigned one of 512 ST colors. Or, in the monochrome version, a different black and white pattern or texture can be assigned to each gray level. The digitized images can be modified with ST Doodle, DEGAS or NEOchrome graphics programs. Antic VP Jon Loveless (usually a pretty jaded guy when it comes to computers) was so blown away by the Print Technik digitizer when he first saw one at COMDEX, he actually bought it for his own use. Expected price is around \$300. Print-Technik, Nikolaistr 2, 8000 Munchen 40, 089/368197.

CINEMATIC SOFTWARE

Billed as bringing the sociological predictions of media analyst Marshall McLuhan to life, the first interactive movie software, CINEMAWARE was unveiled at the Spring CES in Chicago. Mindscape's Cinemaware software line is really a collection of interactive graphic computer games with cinematic themes. They employ cinematic techniques such as tilts, pans, closeups, reverse angles and 360 degree turns and are accompanied by original soundtracks. One game will have over a megabyte of graphics information alone. Mindscape goes so far as saying Cinemaware "will interest ordinary people in computers." Now this we have to see. Mindscape, 3444 Dundee Rd. Northbrook, IL 60062 (312)480-7667.

SIDEKICK CLONES INVADE ST DESKTOP

We interrupt this game to announce -- you have a lunch meeting! Helpmate, yet another Sidekick-style desk accessory for the ST, has a neat gimmick -- an alarm appointment calendar. At the date and time of the appointment, any GEM based application will be interrupted and an alarm will sound before a message announces the appointment. Royal Software, 2160 West 11th Avenue, Eugene, OR 97402 (503) 683-5361.

SIDECAR, yet another "SideClone" desk top organizer, includes calculator, calendar, notepad, address book, ASCII table to calculate the hex and decimal values of any recalled character and "Mini ST DOS" -- a program that lets you perform DOS commands such as copy, delete, rename without returning to the ST desktop. Works in all ST graphic resolutions. Migraph, 720 s. 333rd. Federal Way, WA 98003 (206)838-4677.



Last Hacks

NEW COMPUTER HEALTH HAZARD CLAIMED
by Trendy Woodz - SLCC 4/86

Medical researchers today announced a major new study that implicates computers in yet another health hazard - excessive weight gain. Dr. Nathan Feelgood of the Institute for Advanced Obesity in Orson Wells, Nevada, said that computer programming was linked to weight gain in virtually all of his tests.

"In our animal studies, we found a strong connection between computer usage and weight gain. Rats in a control group that was kept away from computers showed no appreciable weight gain for the length of the study. Offered a variety of foods, they chose a diet of fresh fruits, green and yellow vegetables, alfalfa sprouts, pasta, goat cheese, mineral water and mesquite-grilled fish or poultry. They also preferred healthy exercise like jogging, tennis or swimming."

"On the other hand, rats who were taught to program computers preferred a diet of pizza, Coca-Cola, TV dinners, Hostess Ding-Dongs, ice cream bars and microwave popcorn. None of them got any exercise, staring at the CRT screen for hours while hunched over the keyboard." This was particularly true of rats taught assembly language, the so called "hacker" group, he said. (He declined to disclose the actual type of computer used in the study or whether a programming Rat would use a Mouse...)

"All the rats in the programming group showed a significant increase in weight. I think this clearly indicates one of the health hazards associated with computer usage," he concluded.

Feelgood also replied to charges made recently by animal rights groups that he was torturing animals cruelly for crackpot science.

"Millions of people have to work with computers every day and nobody complains about it. Millions more listen to rock-and-roll, drink floridated water and eat Wonder Bread and nobody makes a fuss. Yet, they pick on my important work. It makes no sense, no sense at all. Wait until the space aliens land, then they'll be sorry!" said Feelgood.

(Dr. Feelgood is accepting any "rats" that the computing public may wish to donate for his experiments. Please use proper packaging techniques when mailing your donation, as the Doctor has received several "deceased packages" wrapped in Fritos bags, popsicle boxes and bound with electrical tape. It should also be noted that the following groups do not fall into the "rats" category: family members, wives/husbands, mother-in-laws, co-workers, etc. Thanks....Ed.)



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OTHER CLUBS

The following list is provided for owners of non-Atari computers:

CLUB	COMPUTER	CONTACT
Apple LUG	Apple	Gary Martin 394-0115
CCUG	Color Comp	Dale Knepper 626-6917
CMARC	Ama.Radio	Bill Hineman 323-2914
COMP KLUB	Texas Ins.	John Hayes 882-7860
DECUS	DEC	C.M. Watson 483-1111
DRUG	DEC Rainbow	Jeff Wehl 349-6967
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